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1653#B

TECH CENTER 1600/2900

1600

RAW SEQUENCE LISTING

DATE: 11/16/2001

PATENT APPLICATION: US/09/550,115A

TIME: 14:01:32

Input Set : A:\84335120.app

Output Set: N:\CRF3\11162001\I550115A.raw

ENTERED

3 <110> APPLICANT: ARAI, KEN-ICHI
4 LIU, JIE
6 <120> TITLE OF INVENTION: NF-AT DERIVED POLYPEPTIDES THAT BIND CALCINEURIN AND
7 USES THEREOF
9 <130> FILE REFERENCE: 084335/0120
11 <140> CURRENT APPLICATION NUMBER: 09/550,115A
12 <141> CURRENT FILING DATE: 2000-04-14
14 <160> NUMBER OF SEQ ID NOS: 11
16 <170> SOFTWARE: PatentIn Ver. 2.1
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 119
20 <212> TYPE: PRT
21 <213> ORGANISM: Mus musculus
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25 1 5 10 15
27 Cys Ala Ser Ile Tyr Ile Phe Asn Val Asp Pro Pro Pro Ser Thr Leu
28 20 25 30
30 Thr Thr Pro Leu Cys Leu Pro His His Gly Leu Pro Ser His Ser Ser
31 35 40 45
33 Val Leu Ser Pro Ser Phe Gln Leu Gln Ser His Lys Asn Tyr Glu Gly
34 50 55 60
36 Thr Cys Glu Ile Pro Glu Ser Lys Tyr Ser Pro Leu Gly Gly Pro Lys
37 65 70 75 80
39 Pro Phe Glu Cys Pro Ser Ile Gln Phe Thr Ser Ile Ser Pro Asn Cys
40 85 90 95
42 Gln Gln Glu Leu Asp Ala His Glu Asp Asp Leu Gln Ile Asn Asp Pro
43 100 105 110
45 Glu Arg Glu Phe Leu Glu Arg
46 115
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 86
51 <212> TYPE: PRT
52 <213> ORGANISM: Mus musculus
54 <400> SEQUENCE: 2
55 Leu Ser Pro Ala Pro Phe Pro Phe Gln Tyr Cys Val Glu Thr Asp Ile
56 1 5 10 15
58 Pro Leu Lys Thr Arg Lys Thr Ser Glu Asp Gln Ala Ala Ile Leu Pro
59 20 25 30
61 Gly Lys Leu Glu Ile Cys Ser Asp Asp Gln Gly Asn Leu Ser Pro Ser
62 35 40 45
64 Arg Glu Thr Ser Val Asp Asp Gly Leu Gly Ser Gln Tyr Pro Leu Lys
65 50 55 60
67 Lys Asp Ser Ser Gly Asp Gln Phe Leu Ser Val Pro Ser Pro Phe Thr
68 65 70 75 80
70 Trp Ser Lys Pro Lys Pro
71 85

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74 <210> SEQ ID NO: 3
75 <211> LENGTH: 123
76 <212> TYPE: PRT
77 <213> ORGANISM: Homo sapiens
79 <400> SEQUENCE: 3
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81   1           5           10           15
83 Glu Pro Asp Asp Cys Ala Ser Ile Tyr Ile Phe Asn Val Asp Pro Pro
84           20           25           30
86 Pro Ser Thr Leu Thr Thr Pro Leu Cys Leu Pro His His Gly Leu Pro
87           35           40           45
89 Ser His Ser Ser Val Leu Ser Pro Ser Phe Gln Leu Gln Ser His Lys
90           50           55           60
92 Asn Tyr Glu Gly Thr Cys Glu Ile Pro Glu Ser Lys Tyr Ser Pro Leu
93   65           70           75           80
95 Gly Gly Pro Lys Pro Phe Glu Cys Pro Ser Ile Gln Ile Thr Ser Ile
96           85           90           95
98 Ser Pro Asn Cys His Gln Glu Leu Asp Ala His Glu Asp Asp Leu Gln
99           100          105          110
101 Ile Asn Asp Pro Glu Arg Glu Phe Leu Glu Arg
102           115          120
105 <210> SEQ ID NO: 4
106 <211> LENGTH: 86
107 <212> TYPE: PRT
108 <213> ORGANISM: Homo sapiens
110 <400> SEQUENCE: 4
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112   1           5           10           15
114 Pro Leu Lys Thr Arg Lys Thr Ser Glu Asp Gln Ala Ala Ile Leu Pro
115           20           25           30
117 Gly Lys Leu Glu Leu Cys Ser Asp Asp Gln Gly Ser Leu Ser Pro Ala
118           35           40           45
120 Arg Glu Thr Ser Ile Asp Asp Gly Leu Gly Ser Gln Tyr Pro Leu Lys
121           50           55           60
123 Lys Asp Ser Cys Gly Asp Gln Phe Leu Ser Val Pro Ser Pro Phe Thr
124   65           70           75           80
126 Trp Ser Lys Pro Lys Pro
127           85
130 <210> SEQ ID NO: 5
131 <211> LENGTH: 559
132 <212> TYPE: PRT
133 <213> ORGANISM: Murine sp.
135 <400> SEQUENCE: 5
136 Met Thr Thr Ala Asn Cys Gly Ala His Asp Glu Leu Asp Phe Lys Leu
137   1           5           10           15
139 Val Phe Gly Glu Asp Gly Ala Pro Ala Pro Pro Pro Gly Ser Arg
140           20           25           30
142 Pro Ala Asp Leu Glu Pro Asp Asp Cys Ala Ser Ile Tyr Ile Phe Asn
143           35           40           45

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145 Val Asp Pro Pro Pro Ser Thr Leu Thr Thr Pro Leu Cys Leu Pro His
146      50                      55                      60
148 His Gly Leu Pro Ser His Ser Ser Val Leu Ser Pro Ser Phe Gln Leu
149 65                      70                      75                      80
151 Gln Ser His Lys Asn Tyr Glu Gly Thr Cys Glu Ile Pro Glu Ser Lys
152                      85                      90                      95
154 Tyr Ser Pro Leu Gly Gly Pro Lys Pro Phe Glu Cys Pro Ser Ile Gln
155      100                      105                      110
157 Phe Thr Ser Ile Ser Pro Asn Cys Gln Gln Glu Leu Asp Ala His Glu
158      115                      120                      125
160 Asp Asp Leu Gln Ile Asn Asp Pro Glu Arg Glu Phe Leu Glu Arg Pro
161      130                      135                      140
163 Ser Arg Asp His Leu Tyr Leu Pro Leu Glu Pro Ser Tyr Arg Glu Ser
164 145                      150                      155                      160
166 Ser Leu Ser Pro Ser Pro Ala Ser Ser Ile Ser Ser Arg Ser Trp Phe
167      165                      170                      175
169 Ser Asp Ala Ser Ser Cys Glu Ser Leu Ser His Ile Tyr Asp Asp Val
170      180                      185                      190
172 Asp Ser Glu Leu Asn Glu Ala Ala Ala Arg Phe Thr Leu Gly Ser Pro
173      195                      200                      205
175 Leu Thr Ser Pro Gly Gly Ser Pro Gly Gly Cys Pro Gly Glu Glu Ser
176      210                      215                      220
178 Trp His Gln Gln Tyr Gly Ser Gly His Ser Leu Ser Pro Arg Gln Ser
179 225                      230                      235                      240
181 Pro Cys His Ser Pro Arg Ser Ser Ile Thr Asp Glu Asn Trp Leu Ser
182      245                      250                      255
184 Pro Arg Pro Ala Ser Gly Pro Ser Ser Arg Pro Thr Ser Pro Cys Gly
185      260                      265                      270
187 Lys Arg Arg His Ser Ser Ala Glu Val Cys Tyr Ala Gly Ser Leu Ser
188      275                      280                      285
190 Pro His His Ser Pro Val Pro Ser Pro Gly His Ser Pro Arg Gly Ser
191      290                      295                      300
193 Val Thr Glu Asp Thr Trp Leu Thr Ala Pro Val His Thr Gly Ser Gly
194 305                      310                      315                      320
196 Leu Ser Pro Ala Pro Phe Pro Phe Gln Tyr Cys Val Glu Thr Asp Ile
197      325                      330                      335
199 Pro Leu Lys Thr Arg Lys Thr Ser Glu Asp Gln Ala Ala Ile Leu Pro
200      340                      345                      350
202 Gly Lys Leu Glu Ile Cys Ser Asp Asp Gln Gly Asn Leu Ser Pro Ser
203      355                      360                      365
205 Arg Glu Thr Ser Val Asp Asp Gly Leu Gly Ser Gln Tyr Pro Leu Lys
206      370                      375                      380
208 Lys Asp Ser Ser Gly Asp Gln Phe Leu Ser Val Pro Ser Pro Phe Thr
209 385                      390                      395                      400
211 Trp Ser Lys Pro Lys Pro Gly His Thr Pro Ile Phe Arg Thr Ser Ser
212      405                      410                      415
214 Leu Pro Pro Leu Asp Trp Pro Leu Pro Thr His Phe Gly Gln Cys Glu
215      420                      425                      430
217 Leu Lys Ile Glu Val Gln Pro Lys Thr His His Arg Ala His Tyr Glu

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218          435          440          445
220 Thr Glu Gly Ser Arg Gly Ala Val Lys Ala Ser Thr Gly Gly His Pro
221          450          455          460
223 Val Val Lys Leu Leu Gly Tyr Ser Glu Lys Pro Ile Asn Leu Gln Met
224 465          470          475          480
226 Phe Ile Gly Thr Ala Asp Asp Arg Tyr Leu Arg Pro His Ala Phe Tyr
227          485          490          495
229 Gln Val His Arg Ile Thr Gly Lys Thr Val Ala Thr Ala Ser Gln Glu
230          500          505          510
232 Ile Ile Ile Ala Ser Thr Lys Val Leu Glu Ile Pro Leu Leu Pro Glu
233          515          520          525
235 Asn Asn Met Ser Ala Ser Ile Asp Cys Ala Gly Ile Leu Lys Leu Arg
236          530          535          540
238 Asn Ser Asp Ile Glu Leu Arg Lys Gly Glu Thr Asp Ile Gly Arg
239 545          550          555
242 <210> SEQ ID NO: 6
243 <211> LENGTH: 559
244 <212> TYPE: PRT
245 <213> ORGANISM: Homo sapiens
247 <400> SEQUENCE: 6
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249 1          5          10          15
251 Val Phe Gly Glu Asp Gly Ala Pro Ala Pro Pro Pro Gly Ser Arg
252          20          25          30
254 Pro Ala Asp Leu Glu Pro Asp Asp Cys Ala Ser Ile Tyr Ile Phe Asn
255          35          40          45
257 Val Asp Pro Pro Pro Ser Thr Leu Thr Thr Pro Leu Cys Leu Pro His
258          50          55          60
260 His Gly Leu Pro Ser His Ser Ser Val Leu Ser Pro Ser Phe Gln Leu
261 65          70          75          80
263 Gln Ser His Lys Asn Tyr Glu Gly Thr Cys Glu Ile Pro Glu Ser Lys
264          85          90          95
266 Tyr Ser Pro Leu Gly Gly Pro Lys Pro Phe Glu Cys Pro Ser Ile Gln
267          100          105          110
269 Ile Thr Ser Ile Ser Pro Asn Cys His Gln Glu Leu Asp Ala His Glu
270          115          120          125
272 Asp Asp Leu Gln Ile Asn Asp Pro Glu Arg Glu Phe Leu Glu Arg Pro
273          130          135          140
275 Ser Arg Asp His Leu Tyr Leu Pro Leu Glu Pro Ser Tyr Arg Glu Ser
276 145          150          155          160
278 Ser Leu Ser Pro Ser Pro Ala Ser Ser Ile Ser Ser Arg Ser Trp Phe
279          165          170          175
281 Ser Asp Ala Ser Ser Cys Glu Ser Leu Ser His Ile Tyr Asp Asp Val
282          180          185          190
284 Asp Ser Glu Leu Asn Glu Ala Ala Ala Arg Phe Thr Leu Gly Ser Pro
285          195          200          205
287 Leu Thr Ser Pro Gly Gly Ser Pro Gly Gly Cys Pro Gly Glu Glu Thr
288          210          215          220
290 Trp His Gln Gln Tyr Gly Leu Gly His Ser Leu Ser Pro Arg Gln Ser

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291 225          230          235          240
293 Pro Cys His Ser Pro Arg Ser Ser Val Thr Asp Glu Asn Trp Leu Ser
294          245          250          255
296 Pro Arg Pro Ala Ser Gly Pro Ser Ser Arg Pro Thr Ser Pro Cys Gly
297          260          265          270
299 Lys Arg Arg His Ser Ser Ala Glu Val Cys Tyr Ala Gly Ser Leu Ser
300          275          280          285
302 Pro His His Ser Pro Val Pro Ser Pro Gly His Ser Pro Arg Gly Ser
303          290          295          300
305 Val Thr Glu Asp Thr Trp Leu Asn Ala Ser Val His Gly Gly Ser Gly
306 305          310          315          320
308 Leu Gly Pro Ala Val Phe Pro Phe Gln Tyr Cys Val Glu Thr Asp Ile
309          325          330          335
311 Pro Leu Lys Thr Arg Lys Thr Ser Glu Asp Gln Ala Ala Ile Leu Pro
312          340          345          350
314 Gly Lys Leu Glu Leu Cys Ser Asp Asp Gln Gly Ser Leu Ser Pro Ala
315          355          360          365
317 Arg Glu Thr Ser Ile Asp Asp Gly Leu Gly Ser Gln Tyr Pro Leu Lys
318          370          375          380
320 Lys Asp Ser Cys Gly Asp Gln Phe Leu Ser Val Pro Ser Pro Phe Thr
321 385          390          395          400
323 Trp Ser Lys Pro Lys Pro Gly His Thr Pro Ile Phe Arg Thr Ser Ser
324          405          410          415
326 Leu Pro Pro Leu Asp Trp Pro Leu Pro Ala His Phe Gly Gln Cys Glu
327          420          425          430
329 Leu Lys Ile Glu Val Gln Pro Lys Thr His His Arg Ala His Tyr Glu
330          435          440          445
332 Thr Glu Gly Ser Arg Gly Ala Val Lys Ala Ser Thr Gly Gly His Pro
333          450          455          460
335 Val Val Lys Leu Leu Gly Tyr Asn Glu Lys Pro Ile Asn Leu Gln Met
336 465          470          475          480
338 Phe Ile Gly Thr Ala Asp Asp Arg Tyr Leu Arg Pro His Ala Phe Tyr
339          485          490          495
341 Gln Val His Arg Ile Thr Gly Lys Thr Val Ala Thr Ala Ser Gln Glu
342          500          505          510
344 Ile Ile Ile Ala Ser Thr Lys Val Leu Glu Ile Pro Leu Leu Pro Glu
345          515          520          525
347 Asn Asn Met Ser Ala Ser Ile Asp Cys Ala Gly Ile Leu Lys Leu Arg
348          530          535          540
350 Asn Ser Asp Ile Glu Leu Arg Lys Gly Glu Thr Asp Ile Gly Arg
351 545          550          555
354 <210> SEQ ID NO: 7
355 <211> LENGTH: 549
356 <212> TYPE: PRT
357 <213> ORGANISM: Artificial Sequence
359 <220> FEATURE:
360 <223> OTHER INFORMATION: Description of Artificial Sequence: Murine/Human
361 NFATc3
363 <400> SEQUENCE: 7

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VERIFICATION SUMMARY

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